

Photo darlington

KODENSHI

PT - 304R2L

The PT-304R2, a high-output NPN silicon photodarlington mounted in a clear sidelooking package, is compact, low profile and easy to mount.

FEATURES

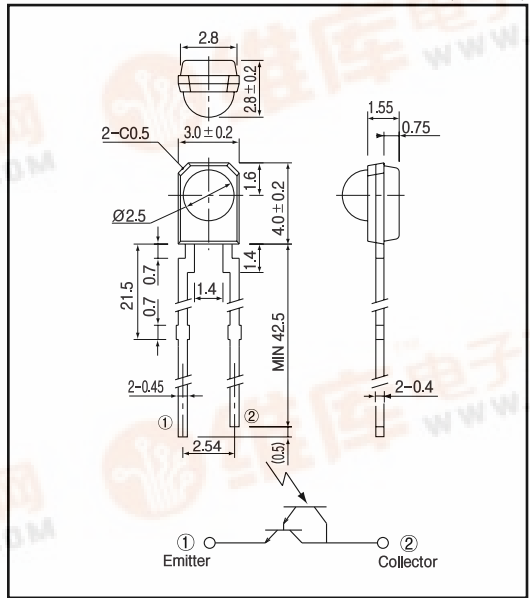
- Low profile package
- Compact
- Low - cost
- Side looking plastic package

APPLICATIONS

- Optical counters
- Optical detectors
- Tape - end sensors

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25)

Item	Symbol	Rating	Unit
C - E voltage	V _{CEO}	30	V
E - C voltage	V _{ECO}	4	V
Collector current	I _c	50	mA
Collector power dissipation	P _c	75	mW
Operating temp.	Topr.	- 25 ~ + 85	
Storage Temp.	Tstg.	- 30 ~ + 85	
Soldering temp. ¹⁾	Tsol.	260	

¹⁾ For MAX.5 seconds at the position of 2 mm from the package

ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Collector dark current	I _{CEO}	V _{CEO} =10V			10	μA
Light current	I _L	V _{CE} =5V, 200lx ²⁾	5			mA
C - E saturation voltage	V _{CE(sat)}	I _c =1mA, 1,000lx ²⁾			1.4	V
Switching speeds	Rise time	V _{CC} =10V		65		μsec.
	Fall time	I _c =5mA		75		μsec.
Spectral sensitivity		R _L =100		700~1,000		nm
Peak wavelength	λ _p			850		nm
Half angle				± 40		deg.

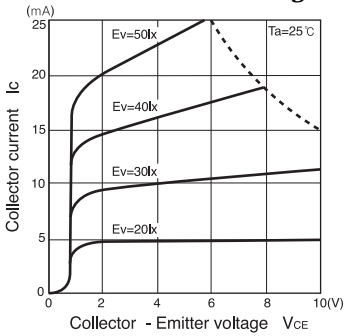
²⁾ Color temp. =2856K standard Tungsten lamp



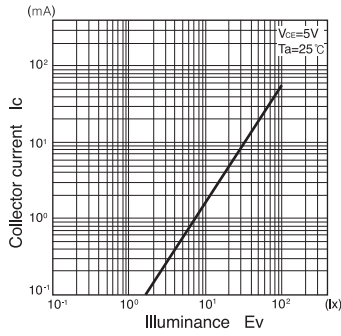
Photo darlings

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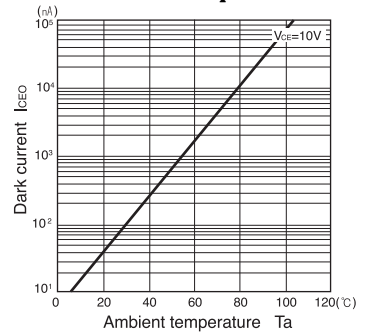
Collector current Vs. Collector - Emitter voltage



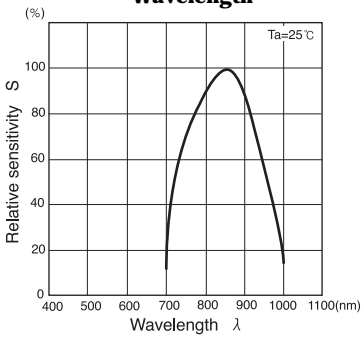
Collector current Vs. Illuminance



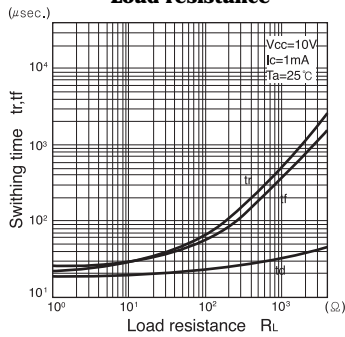
Dark current Vs. Ambient temperature



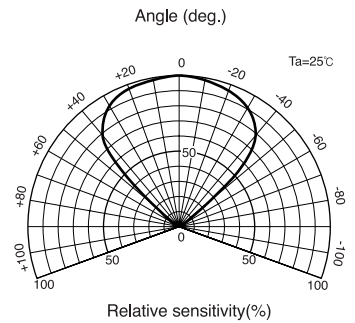
Relative sensitivity Vs. Wavelength



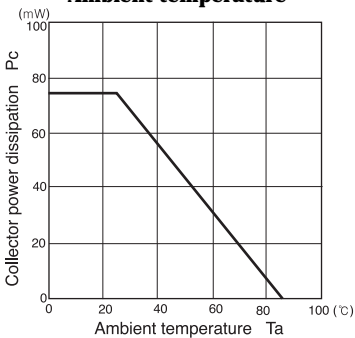
Switching time Vs. Load resistance



Radiant Pattern



Collector power dissipation Vs. Ambient temperature



Switching time measurement circuit

